Siphon S-502
Summary of Hydraulic Design Data

Revisions:
- 2 November 2000 – Original submission.

XY Coordinate[1] – 836440 658610
Location: On C-11 Canal, between US-27 and S-9 Pump Station

Purpose/Operational Intent: Flood Control Conveyance
- Provides conveyance of western C-11 Basin storm runoff when the S-9 Pump Station is operating.
- Provides conveyance of seepage collected within C-11 basin west of S-381 when S-9A is operating.
- Allows two conveyance canals to cross over C-11 without controlling structures (passive).

Design Condition:	Flood Control	2880 cfs
	Seepage Control	Required

Design Heads

Normal with S-9 Pumps at Full Capacity		
	Headwater	3.00 ft-NGVD
	Tailwater	2.00 ft-NGVD
	Velocity	6.73 fps[3]
Normal with S-9A Pumps at Full Capacity		
	Headwater	4.00 ft-NGVD
	Tailwater	3.75[2] ft-NGVD
	Velocity	1.17 fps[3]

Water Stage Elevations

Maximum Water Surface Elevation	5.20 ft-NGVD
Minimum Water Surface Elevation	0.00 ft-NGVD
Normal Water Surface Elevation	5.00 ft-NGVD

Structure Element Lengths

Inlet with 45^{o} wingwall	80 feet
Closed Conduit	370 feet
Outlet with 45^{o} wingwall	105 feet

Channel Invert -14.5 ft-NGVD

Notes:
- [1] XY coordinates system used is NAD 83, Florida east, state plane.
- [2] Estimated hydraulic losses
- [3] Throat velocity
- All elevations are in feet, NGVD (National Geodetic Vertical Datum of 1929)

Data Compiled from:
- Engineering Calculations and HEC-RAS model results
- Elevations expected compiled from S-9 headwater records.